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27(Added). A method as claimed in claim 27, wherein said diagnostics data further comprises a reject reason when an attempted route is rejected.

Remarks

The Examiner's conditional allowance of claims 13 and 15-19, and 22 is noted with appreciation. By their amendments the applicants have re-written claims 13, 15, and 22 in independent form, including all the limitations of the base claim. In view of the Examiner's indication that these claims would be allowable, it is believed that they are now in condition for allowance.

Claim 9 has been amended to specify that the diagnostics data is returned in set-up messages used to establish the connection (see, for example, lines 13 - 21, page 2). In accordance with the invention, when a failure occurs, it is merely necessary to turn on the diagnostics mode, and attempt to re-setup of the connection. The diagnostics data from each leg of each attempted route is returned to the originating node (or the user), which can then use this information to determine the exact cause and location of the failure. The incorporation of this diagnostic information in the call set-up messages provides a simple and effective way of locating faults and determining what remedial action is required.

The Examiner's primary reference to Engbersen discloses a diagnostic method wherein special test packets are sent from one or more nodes to specific destinations that comprise a test packet analyzer. The test analyzers at the nodes then analyze the incoming test packets to identify system errors. In Engbersen, in order for analysis to occur, the test packets must arrive at the specific analyzers. If there is a fault in the path, the packet will never reach the test analyzer, and the analyzer will have no way of knowing where the fault occurred.

Also Engbersen requires the sending of test packets to specific destinations. The object of the invention is to determine why a particular attempt to set of a switched virtual connection has failed. During call set-up, set-up signaling messages are exchanged through the network, and the invention takes advantage of this in the diagnostic mode by returning the diagnostics data in the set-up messages so that the originating node can determine the cause of the failure. Unlike Engbersen, which only sends test packets one-way to specific

nodes, the invention allows the originating node to receive the diagnostics data from all the nodes (and trunk groups) visited, so the reason for the failure can be determined.

Clearly, in the applicant's respectful submission, Engbersen does not teach returning the diagnostics data to the originating node from all the nodes visited in the call set-up messages. Similarly arguments apply to corresponding apparatus claim 21.

With regard to former claim 12, which claimed the feature of returning the diagnostics data to the original user, the Examiner did not allege that Engbersen shows this feature, but merely that it is known to send ACK signals back to the source. Such signals do not, however, carry diagnostics data. One of the features of the invention is to take advantage of the fact that messages are returned to the originator to carry back the diagnostics data so as to permit the cause and location of a fault to be determined. ACK signals clearly do not constitute "diagnostics data" as used in the present application since it would not be possible to determine the source of a failure from an ACK message, or more precisely in the event of a failure from the lack of such a message. To avoid any doubt, independent claims 9, 21 have been amended to specify that the diagnostics data includes at least the identity of the nodes and trunk groups visited (see lines 13-15, page 2).

Dobbins fails to disclose a system noted above wherein diagnostics data are returned from visited nodes to an originating node.

None of the references alone or in combination discloses the system noted above, wherein the diagnostics data is returned in the call set-up messages, and accordingly the claims as presently worded are believed patentable.

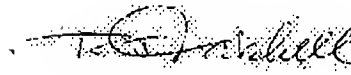
The applicants have also reviewed Kim, Bergeson, and Clark, and these patents also fail to disclose the method described above and now claimed in the independent claims.

It is believed that amended wording overcomes the Examiner's objections and that the application is now in condition for allowance, and reconsideration and allowance are respectfully requested.

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Respectfully submitted



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